EYDEL'NANT, I.B.

      Design of publications produced by means of near-print.
      NTI no.6:32-35 '63.   (MIRA 17:1)

EYDEL'NANT, L.B., inzh.; TIKHOMIROV, M.Ye., starshiy inzh.-metodist, otv. za vypusk; GROSFATER, B.B., red.

[Equipment for the petrochemical industry and oil and gas refineries; program and tests for correspondence technical school courses "Installation and maintenance of industrial equipment"] Metodicheskii kabinet. Oborudovanie predpriiatii neftegazopererabatyvaiushchei i neftekhimicheskoi promyshlennosti; programma i kontrol'nye raboty dlia zaochnogo obuchenii po spetsial'nosti tekhnikumov "Montazh i remont promyshlennogo oborudovaniia." Moskva, 1959. 14 p.   (MIRA 15:2)

1. Russia (1917- R.S.F.S.R.) Ministerstvo stroitel'stva. Upravleniye kadrov. Metodicheskiy kabinet.
    (Petroleum refineries—Equipment and supplies)
    (Chemicals industry—Equipment and supplies)

VERVEVKINA, A.K., inzh.; KOLCHINSKIY, Yu.L., inzh.; NIKOLAYEVSKIY,
Ye.Ye., inzh.; RODIONOVA, R.G., inzh.; RYAPOLOV, A.F.,
inzh.; SOKOL, I.A., inzh.; STERLIN, S.L., inzh.;
EYDEL'MANT, L.B., inzh.; ORLOV, V.M., kand. tekhn. nauk,
retsenzent; YURGEL', B.I., inzh., retsenzent; FOKIN, V.Ya.,
inzh., nauchn. red.; VOLNYANSKIY, A.K., glav. red.; SUDAKOV,
G.G., zam. glav. red.; IOSELOVSKIY, I.V., red.; MARKOV, I.I.,
red.; MEL'NIK, V.I., red.; ONKIN, A.K., red.; STAROVEROV,.
I.G., red.; TUSHNYAKOV, M.D., red.; CHERNOV, A.V., red.

[Engineering pipelines for industrial enterprises] Tekhno-
logicheskie truboprovody promyshlennykh predpriiatii. Mo-
skva, Stroiizdat, 1964. 2 v.   (MIRA 17:12)

VERVEYKINA, A.K., inzh.; KOLCHINSKIY, Yu.L., inzh.; NIKOLAYEVSKIY,
Ye.Ya., inzh.; RODIONOVA, R.G., inzh.; RYAPOLOV, A.F., inzh.;
SOKOL, I.A., inzh.; STERLIN. S.L., inzh.; EYDEL'NANT, L.B.,
inzh.; ORLOV,V.M., kand. tekhn. nauk retsenzent; YURGEL',B.I.,
inzh.,retsenzent; FOKIN,V.Ya.,inzh., red.; VOLNYANSKIY,A.K.
red.; MARKOV, I.I., red.; MEL'NIK, V.l., red.; ONKIN, A.K.,
red.; STAROVEROV, I.G., red.; TUSHNYAKOV, M.D., red.; CHERNOV,
A.V., red.; SUDAKOV,G.G., red.; IOSELOVSKIY,I.V., red.

[Technological pipings in industrial enterprises] Tekhnologi-
cheskie truboprovody promyshlennykh predpriiatii. Moskva,
Stroiizdat. Pt.1. 1964. 784 p.   (MIRA 18:9)

EYDEL'NANT, L.I., inzhener.

Quality improvement of industrial construction-project blueprints. Stroi.
prom. 31 no.6:22-23 Je '53.   (MLRA 6:7)
                              (Building--Drawing) (Metallurgical plants)

EYDEL'NANT, M. D.

2

25(2)   SOV/19-59-6-100/309

AUTHOR: Ioffe, L.B., Disman, M.I., Yerinckiy, S.O., Ka-
             trynov, S.F., Chatckiy, P.I., ~~Crekhot~~, G.P., Purim,
             Ya.A., and Eydel'nant, M.B.

TITLE: An Apparatus for Dyeing With Aniline Dyes, Pre-Drying,
             Steaming and Drying, e.g: Rabbit Skins.

PERIODICAL: Byulleten' Izobreteniy, 1959, Nr 6, pp 22-23 (USSR)

ABSTRACT: Class 28b, 17. Nr 118571 (601054 of 13 June 1958).
             1) To increase the output and improve the operation,
             the apparatus consists of a chamber for spraying the
             skins with the dyeing agent, an adjoining drying-and-
             steaming chamber, two conveyors running through open-
             ings in walls between the chambers, and an air-con-
             ditioning system. 2) The skin-spraying chamber has the
             form of a vertical box and includes a horizontal con-
             veyor for moving the skins to the drying-and-steaming
             chamber, sprayers installed above the conveyor and
             connected with a dye tank, two round brushes for
Card 1/2   rubbing the dye into the fur, and two string conveyors

SO7/19-59-6-100/309

An Apparatus for Dyeing With Aniline Dyes, Pre-Drying, Steaming and Drying, e.g: Rabbit Skins.

for holding the skins during the rubbing-in process. 3) The drying-and-steaming chamber is made in the form of a rectangular box divided by floors into three horizontal sections. The upper one serves as the pre-drying zone, the intermediate one - as the steaming zone, and the bottom one - as the drying zone. In all three sections there are horizontal conveyors transferring the skins from one section to another. The bottom conveyor is the discharging one. 4) All the conveyors consist of two chains with a synthetic-fiber grid drawn between them. 5) To remove loose dye from the hair, there are a beating drum and a round brush in the lower section of th skin-spraying chamber, beneath the outgoing conveyor.

Card 2/2

EYDEL'NANT, M. I.

Schetnyye tablitsy dlya deleniya lyubogo chisla na lyuboye s tochnost'yu do 5 znachashchikh tsifr s prilozheniyem tablits popravok. Tashkent, NIKHI (1930), 1-193.

SO: Mathematics in the USSR, 1917-1947
        edited by Kurosh, A.G.,
        Markushevich, A.I.
        Rashevskiy, P.K.
    Moscow-Leningrad, 1948

EYDEL'MAN, M.I.

28177

Vtoroe Vsesoyuznoe soveschanie po matematicheskoy statistike. (Tashkent, Sent. 1948g) Izvestiya Akad Nauk. Uz.S.S.R., 1949, №2, s. 115-18.

EYDEL'MAN, M.I. The second Allunion conference regarding mathematical statistic. ((City of) Tashkent, September, 1948 year. Information of the Academy of Science. Uz. S.S.R., 1949-2, page 115-18.

SO. LETOPIS NO. 34

EYDEL'MANT,M.I.

Sampling from finite aggregates. Trudy Inst.mat.i mekh.
AN UzSSR no.10 pt.1:141-147 '52.   (MLRA 8:9)
                    (Sampling (Statistics))

EYDEL'NANT, M. I.

Semistatistical Correlation
Tr. In-ta matem. i. mekham. AN Uzbek. SSr. No 11, 1953, pp 29-51

The author studies the dependence of a random quantity which is expressed as
the sum of a series of products of two functions, one of random quantities
and the other of nonrandom quantities. Methods of the theory of correlation
are applied to the problem. The abstractor, formulations in the work.
(RZhMat, No 5, 1955)

SO: Sum..No. 639, 2 Sep 55

Eĭdel'nant, M. I.   The simplest nonparametric method of quality control. Akad Nauk [illegible] Inst Mat Meh 11 1953; 52-[illegible]   R[ussian]. General discussion of single s[ampling] [illegible] defectives allowed in sample [illegible] [illegible] and tables are provided.

EYDEL'MANT, M.I.

Efficient methods for production control. Trudy Inst.mat.i mekh.
AN Uz.SSR no.15:57-68 '55.   (MLRA 9:5)
              (Industries--Quality control)

EYDEL'NANT, M. I.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress (Cont.) Moscow,
Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts.   Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.
Sragovich, V. G. (Moscow). Construction of the Statistical
Theory of Nonstationary Systems Based on Probability   130-131
Methods.

Mention is made of Khinchin, A. Ya.

Statulyavichus, V. A. (Leningrad).   Theorem of Nonhomogenous   131-132
Markov Chains.

Tumanyan, S. Kh.(Yerevan). On the Capacity of χ^{2} Test in
Relation to "Close" Alternatives.   132

Eydel'nant, M. I. (Tashkent). Application of the Theory
of Decision Functions for Designing Standard Plans of   132
Acceptance Control.

Mention is made of Kolmogorov, A. N.

Card 42/80

Eidel'nant, M. I. Effectiveness of a form of statistical
control. Vestnik Leningrad .... ..
74-88 Russian.
A classification of acceptance sampling ...
and the effectiveness of certain special plans ... basis
of a loss function is evaluated.   G. E. Noether

RYDEL'MAN, M.I.

Effectiveness of the type D_1 statistical control. Trudy Inst. mat.
i mekh. AN Uz. SSR no.17:25-44 '56.   (MLRA 10:4)
                    (Quality control)

EYDEL'MANT, M.I.

Approximate formulas for hypergeometric distribution. Izv.
AN Uz.SSR.Ser.fiz.-mat.nauk no.5:79-92 '58.   (MIRA 11:12)

1. Institut matematiki i mekhaniki im. V.I.Romanovskogo AN UzSSR.
        (Distribution (Probability theory))

16(1),16(2),7(7)   SOV/166-59-2-11/11

AUTHOR: Eydel'nant,M.I.

TITLE: The Book of P.P.Mesyatsev "Application of the Theory of
            Probability and Mathematical Statistics for the Construction and
            Production o Radio Equipment"   (niga P.P.Mesyatseva "Primene-
            niye teorii veroyatnostey i matematicheskoy statistiki pri
            konstruirovanii i proizvodstve radioapparatury")

PERIODICAL: Izvestiya Akademii nauk Uzbekskoy SSR, Seriya fiziko-
            matematicheskikh nauk, 1959, Nr 2, pp 88-91 (USSR)

ABSTRACT: This is an adverse criticism of the reviewed book, published
            in 1958 in Moscow. The reviewer says that almost the whole
            book consists only of errors.

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S/044/62/000/010/017/042
B166/B102

IL. 6187

AUTHORS: Sirazhdinov, S. Kh., Eydel'nant, M. I.

TITLE: Contribution to the problem of estimates of product quality
              from the results of sampling

PERIODICAL: Referativnyy zhurnal. Matematika, no. 10, 1962, 17, abstract
              10V85 (Tr. In-ta matem. AN UzSSR, no. 22, 1961, 135 - 145)

TEXT: There are S batches of articles with known sizes N_i and with an
unknown number D_i of defective articles among them. From each batch
random samples of size n_i including a number d_i of defective articles are
taken. A decisive rule is applied: (1) if $d_i \geq c'$, then all articles which
did not fall into the sample are rejected without checking; (2) if $c < d_i < c'$
a 100% check is made; (3) if $d_i \leq c$ all articles which did not fall into the
sample are accepted without checking. Let $N'(D')$ be the number of articles
(defective articles) rejected without checking, $N''(D'')$ the number of

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Contribution to the problem...   S/044/62/000/010/017/042
                                      B166/B102

checked articles (defective articles), $N'''(D''')$ the number of articles (defective articles) accepted without checking. $N = N' + N'' + N'''$, $D = D' + D'' + D'''$. Unbiased estimates are given in the article for quantities D, D' and D'''. Estimates are considerably simplified if a check is made on one more $(n + 1)$-th randomly selected article. Unlike in other papers (RZhMat, 1956, 3999; 1958, 2245; 1960, 8077) the formulas obtained in this paper are valid with any $q = \frac{D}{N}$ and $\lambda = \frac{n}{N}$. [Abstracter's note: Complete translation.]

Card 2/2

ROMANOVSKIY, V.I., akademik; SARYMSAKOV, T.A., akademik, otv. red.;
     DIVEYEV, R.Kh., red.; NAGAYEV, S.V., red.; MALEVICH, T.L.,
     red.; RONZHIN, V.I., red.; EYDEL'NANT, M.I., red.;
     KISELEVA, V.N., red.; GOR'KOVAYA Z.P., tekhn. red.

[Mathematical statistics] Matematicheskaia statistika.
Tashkent, Izd-vo Akad. nauk UzSSR, Book 2. [Operational
methods of mathematical statistics] Operativnye metody ma-
tematicheskoi statistiki. 1963. 794 p.   (MIRA 16:5)

1. Akademiya nauk Uzbekskoy SSR (for Romanovskiy, Sarymsakov).
2. Otdel teorii veroyatnostey i matematicheskoy statistiki
Instituta matematiki im. V.I.Romanovskogo Akademii nauk Uzbek-
skoy SSR (for Diveyev, Nagayev, Malevich).
         (Mathematical statistics)

EYDEL'NANT, M.I.

Transactions of the Sixth Conference (Cont.)   SOV/6371

L 39923-65 . EWT(d)/EWP(c)/EWP(v)/T/EWP(k)/EWP(1)   Pf-4

ACCESSION NR: AT5004663   S/3129/64/000/001/0048/0057

                                                    /?
AUTHORS: Eydel'nant, M. I.; Inamov, I.   B+1

TITLE: Practical application of estimators for analyzing results of statistical
quality control

SOURCE: AN UzSSR. Institut matematiki. Teoriya veroyatnostey i matematicheskaya
statistika, no. 1, 1964, 48-57

TOPIC TAGS: quality control, statistical analysis /(

ABSTRACT: The authors give solutions to problems posed in a paper by I. Inamov
(Otsenka rezul'tatov kontrolya, provodimogo po planam $D_1(n;c)$ (publikyyetsya v
nastoyashchem sbornike)), for plans $D_1(n;0)$ usually applied in practice. All
definitions and notations are taken directly from the above reference. Orig. art.
has: 10 tables and 11 formulas.

ASSOCIATION: Institut matematiki, AN UzSSR (Institute of Mathematics, AN UzSSR)

SUBMITTED: 00   ENCL: 00   SUB CODE: MA

NO REF SOV: 004   OTHER: 000

Card 1/1

24.7800   1144, 1147, 1145   87339
15.8109   S/190/60/002/010/023/026/XX
                                               B004/B064

AUTHORS: Mikhaylov, G. P., Eydel'nant, M. P.

TITLE: The Effect of the Polyester Structure on the Temperature
             Range of the Maximum of the Dielectric Losses

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 10,
             pp. 1548-1551

TEXT: A previous paper (Ref. 1) has dealt with the investigation of the
dielectric constant and the $\tan\delta$ of the dielectric losses on various
polyesters. In this connection, two types of losses were found to exist:
dipole-elastic (de) and dipole-radical (dr) losses, both caused by the
relaxation of the COO group. Aim of this study is to confirm the as-
sumption that an increase of the number of methylene groups in the alcohol
of the ester exerts less influence upon the temperature of the dr losses
than the increase of the methylene groups in the acid. $\tan\delta$ was measured
by the method described in Ref. 1 for hexamethylene terephthalate (6MT)
and decamethylene terephthalate (10MT) at 1000 cps. The two substances
were investigated both in elastic form, pressed from powder, and in rigid,

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The Effect of the Polyester Structure on the   S/190/60/002/010/023/026/XX
Temperature Range of the Maximum of the   B004/B064
Dielectric Losses

crystalline form, precipitated from solution. Two maxima of $\tan\delta$ occurred
as is shown in Fig. 1. The maximum at lower temperature is ascribed to the
dr losses, that at higher temperature to the de losses. From the equation
$\log f_{max} = \varphi(1/T_{max})$ (f = frequency, T = temperature) the activation energy
of the dr losses was determined for 6MT to be 12, for 10MT to be
11.5 kcal/mole. A comparison with previously (Refs. 1-4) obtained data for
ethylene glycol-, hexamethylene glycol-, decamethylene glycol esters of
terephthalic-, adipic-, and sebacic acid led to the following conclusions:
1) the temperature range of the $\tan\delta_{max}$ of the dielectric losses of poly-
esters depends linearly on the concentration of aromatic cycles in the
chain of the macromolecule. There is no difference whether the concentration
of the aromatic cycles changes in the alcohol or in the acid of the poly-
ester. 2) The temperature range of the $\tan\delta_{max}$ of the dr losses depends on
the structure of the acid. For the polyesters of aromatic acids the tempera-
ture of $\tan\delta_{max}$ is higher than for the polyesters of aliphatic acids.

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87339

The Effect of the Polyester Structure on the   S/190/60/002/010/023, C14/XX
Temperature Range of the Maximum of the   B004/B064
Dielectric Losses

Legend to Fig. 1: The function $\tan\delta = \varphi(t)$ for polyesters of different
crystallinity at 1000 cps. 1: 6MT pressed, 1': 6MT obtained from solution,
2: 10MT pressed, 2': 10MT obtained from solution.
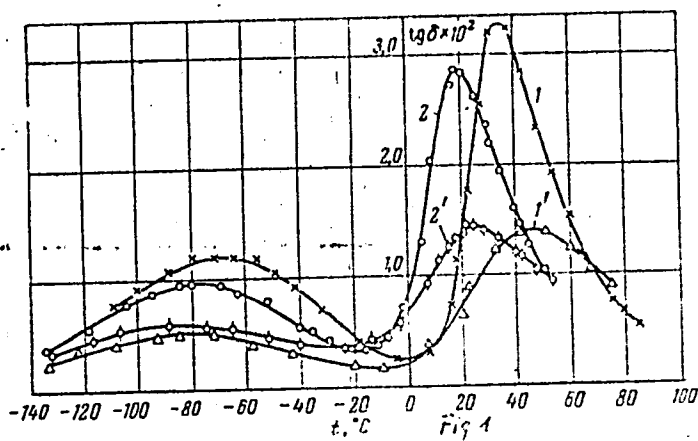There are 4 figures, 1 table, and 4 Soviet references.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. I. Kalinina
(Leningrad Polytechnic Institute imeni M. I. Kalinin)

SUBMITTED: June 3, 1960

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B004/B064

Fig. 1

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24.7800 1144, 1147, 1145

15.8109

S/190/60/002/010/024/026/XX
B004/B064

AUTHORS: Mikhaylov, G. P., Eydel'nant, M. P.

TITLE: Study of the Dielectric Losses of Polyethers

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 10,
             pp. 1552-1556

TEXT: In continuation of previous papers (Refs. 1-3), which have dealt
with the dielectric losses of polyesters, this paper discusses the investi-
gation of the dielectric losses of polyethers: polyxylylene oxide and poly-
oxymethylene. Polyxylylene oxide was placed at the authors' disposal by
A. V. Tunik, scientific collaborator of the IVS AN SSSR (Institute of
Macromolecular Compounds of the AS USSR), polyoxymethylene by G. P. Nosov,
scientific collaborator of the NIIPM (Scientific Research Institute of
Plastics). Tan δ was measured by the method described in Ref. 1. The fol-
lowing results were obtained: Two overlapping maxima of the dielectric
losses, i.e. dipole-elastic- and dipole-radical losses were observed with
polyoxymethylene at -60°C. With polyxylylene oxide three maxima occur:
a) at -112°C and a weaker one at -60°C (dipole-radical losses), and an

Card 1/2

Study of the Dielectric Losses of Polyethers

87340

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intensive maximum at +10°C (dipole-elastic losses). The same laws as hold for the polyesters were observed: a) introduction of aromatic cycles increases the temperature of the $\tan \delta_{max}$ of the dipole-elastic losses;

b) the temperature of the $\tan \delta_{max}$ of the dipole-radical losses depends only on the mobility of the polar group (O in the case of ethers, CO in the case of esters). The dipole-radical losses are caused by the relaxation of the ether group, the dipole-elastic losses by the motion of segments of the molecular chain. There are 3 figures and 5 references: 4 Soviet and 1 German.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. I. Kalinina (Leningrad Polytechnic Institute imeni M. I. Kalinin)

SUBMITTED: June 3, 1960

Card 2/2

MIKHAYLOV, G.P.; EYDEL'NANT, M.P.

Dielectric properties of a series of polyesters with aromatic nuclei
in their chains. Vysokom. soed. 2 no.2:287-294 F '60.
(MIRA 13:11)

1. Leningradskiy politekhnicheskiy institut imeni M.I.Kalinina.
              (Polymers—Electric properties)

MIKHAYLOV, G.P.; EYDEL'NANT, M.P.

Temperature-frequency relationships of the angle of dielectric losses of mixed polyesters. Vysokom. soed. 2 no.2:295-302 F '60.
(MIRA 13:11)

1. Leningradskiy politekhnicheskiy institut im.M.I.Kalinina.
(Polymers)

22568
S/190/61/003/005/011/014
B110/B220

١٥.8500   also ١١٣٦, ١١٣8

AUTHORS: Sazhin, B. I., Eydel'nant, M. P.

TITLE: Study of the electrical conductivity of polymers IV.
Influence of dipole polarization (polystyrene, poly-p-chloro-
styrene, copolymer from styrene and acrylo-nitrile)

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 5, 1961, 761-767

TEXT: Recently, one uses increasingly measurements of electrical conduc-
tivity for investigating the dipole polarization of polymers, since in the
range of the polarization phenomena the specific volume resistance ρ_v de-
pends on the time of stress and on the temperature. The phenomenological
theory (Ref. 2: B. V. Hamon, Proc. Instn. electr. Engr., 99, IV, 151, 1952)
expresses the relation of ρ_v measured at the moment τ (the frequency of the
alternating field being $0.1/\tau$) to the dielectric factor of loss ε''. In
order to ascertain the applicability of this theory for polymers, the
ε''-values thus obtained from the frequency f (range from 10 to 10^{-5} cps)
and ρ_v are compared with the experimental results. The authors studied

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Study of the electrical...

the influence of dipole polarization on the conductivity of polystyrene
(PS), poly-p-chlorostyrene (PPCS), and the styrene copolymer of acrylo-
nitrile (ratio = 72 : 28) CH-28 (SN-28) as well as the applicability of the
phenomenological theory for the determination of ε'' at low frequencies
from data obtained with direct current. Technically pure specimens of PS,
PPCS, and SN-28 (disks of 0.5 to 2 mm thickness and 50 to 100 mm radius)
were pressed at a temperature surpassing the vitrification temperature T_v
by 80°C. Al foils of 0.055 mm thickness pressed-on to the specimens served
as electrodes. The specimen was heated to $T_v + 30$°C. The following
instruments were used for measuring the dielectric constant (ε) and the
dielectric loss (tan δ): 1) at 50 cps, the high-voltage bridge P-525
(R-525); 2) from 400 to 10^4 cps, the МЛЕ-1 (MLYe-1) bridge; 3) from
$6 \cdot 10^4$ to $1.5 \cdot 10^6$ cps, the КВ-1 (KV-1) cps-coulometer. The charge currents
were measured at $\tau = 10$ to 1200 sec based on the method described in Ref. 3
(B. I. Sazhin et al.: Vysokomolek. soyed., 2, 1535, 1960). For measurements
from 10 msec to 10 sec, the circuit of Fig. 1 was used. The relay P and a
special oscilloscope (МПО-2) (MPO-2) type IX synchronized the power supply

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Study of the electrical...

to the specimen and the current recording. The total sensitivity amounted to $3.6 \cdot 10^{-3}$, the current sensitivity to $3.6 \cdot 10^{-3}/R_{st}$, where R_{st} is the standard resistance of the tregohmmeter MOM-4 (MOM-4) charging the specimen, which has been determined according to $\tau \geqslant 100 \; nP_{st}C/P$. n is the exponent of the Curie formula: $i = i_o\tau^{-n}$; P = limit of error, %; τ = duration of reading; C = sample capacitance and apparatus entrance capacitance. The values for ε'' at frequency f were determined as follows: $\varepsilon'' = 1.8 \cdot 10^{12}\tau/\rho_v \cdot C$.

Fig. 2 shows $\log \rho_v = F(1/T)$ for PS, PPCS, and SN-28 at a duration of application of voltage of 0.01 to 1200 sec. Three different curve sections were found: at relatively low temperatures ρ_v rises steeply with increasing τ and decreases slightly with increasing temperature (section I); (near T_v) ρ_v is dependent on τ and passes a minimum, when the temperature rises (section II); at higher temperatures ρ_v is much more dependent on the tempera-

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Study of the electrical...

ture than in section I, but independent of τ (section III). Analogous conditions hold for polyvinyl acetate, poly-tri-fluoro chloro ethylene and polyvinyl chloride masticated rubber. In sections I and II, ρ_v is strongly influenced by polarization. This is proved by the strong dependence of ρ_v on τ and by the reduced current strength as compared to the value at the beginning of the experiment. The minimum ρ_v in section II is related to the dipole polarization effecting the so-called "dipole electric losses" in alternating fields. In section III, ρ_v is determined by the ionic conductivity; this is proved by studies of the influence exerted by admixtures and electrical purification on the conductivity. The product $n_0 \mu^2_{ef}$ (n_0 = number of polar groups per cm^3 and μ_{ef} = their effective dipole moment) increases from PS to PPCS and SN-28. Therefore, the dielectric losses and the influence of dipole polarization on ρ_v increase near T_v. For τ = 15, in the minimum range ρ_v amounts for PS to $2.5 \cdot 10^{16}$, for PPCS to $6 \cdot 10^{14}$, and for SN-28 to $2 \cdot 10^{14}$ ohm cm. ε " is ob-

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tained from ϱ, according to formula (1). Contrary to other polymers, $\cdot_v$ for PS, PPCS, and SN-28 between 100 and 1500 v is independent of the voltage applied to the specimen. Fig. 3a shows the logarithm of the charge current (black points) and of the discharge current (clear circles) as a function of logarithm τ at various temperatures. In the first interval of $\cdot$, ε" is considerably influenced by polymerization, in the second, by the ionic conductivity. The maxima of ε" of curve 3$\cdot$ for SN-28 between 100 and 130°C and of curve 3b for PPCS between 120 and 170°C are equal for 10. and 50 cps so that they may be used for the quantitative determination of the dipole electric losses. At low frequencies (Fig. 4), there occur additional losses due to the ionic conductivity besides the dipole electric losses. The function ε" = φ(log f) represented in Fig. 6a is remarkable because of its asymmetry in the entire temperature range measured (138 to 173°C), which agrees with the values found for halostyrenes and may be due to the overlapping of two relaxation processes. The mechanical losses near T_v found for PPCS, other styrenes, and their derivatives may be due to mobile side radicals at $T < T_c$. There are 6 figures and 14 references.

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Study of the electrical...

7 Soviet-bloc and 7 non-Soviet-bloc. The two references to English-language publications read as follows: Ref. 13: S. Saito et al. J. Appl. Polymer. Sci., 2, 93, 1959. Ref. 14: K. H. Illers et al. Rheol. Acta, 1, 322, 1958, J. Polymer Sci., 41, 528, 1959.

ASSOCIATION: Nauchno-issledovatel'skiy polimerizatsionnykh plastmass
(Scientific Research Institute of Polymer Plastics)

SUBMITTED: September 5, 1960

Fig. 1: Circuit diagram of
the measuring device for
specific electric resist-
ances at short periods
(0.01÷1 sec); Cx = specimen;
1 and 2 = tregohmmeter of
the type MOM-4 and oscillo-
scope of the type MPO-2
(MPO-2); P = electromagnetic relay; R = resistance 10^7 ohms; Π_p = fuse.

FIG 1
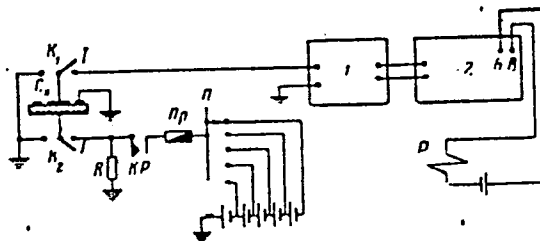
Card 6/10

EYDEL'MANT, M. P.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences at the Institute of High-Molecular Compounds in 1962:

"Investigation Using a Dielectric Method of the Effect of Complex Aromatic Polyesters on Molecular Relaxation."

Vest. Akad. Nauk SSSR.   No. 4, Moscow, 1963, pages 119-145

S/190/62/004/004/014/019
B117/B138

5.4700
11.6540

AUTHORS: Sazhin, B. I., Eydel'nant, M. P.

TITLE: The electric conductivity of polymers. V. Polycarbonate, polyethylene terephthalate, mixed polyester, poly-oxy-methylene

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 4, 1962, 583-590

TEXT: The dependence of volume resistivity (β_v) on temperature (from -180 to +200°C) and on the duration of the charge $(\tau = 0.01 - 1200$ sec) was studied with crystalline polyesters, for which dipole-elastic and dipole-radical polarization is characteristic: polycarbonate (PK), polyethylene terephthalate (PET), mixed polyester TC∋-80(TSE-80) from terephthalic acid, sebacic acid and ethylene glycol as well as poly-oxymethylene (POM). It was found that in the vicinity of the brittle temperature the volume resistivity of the polymers investigated is determined by the dipole-elastic polarization and conductance. For $T < T_{br}$, β_v changes only slightly with the temperature and much depends on τ, i. e., β_v as a function of τ and T essentially depends

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The electric conductivity of...

on the appearance of dipole-radical polarization. It was shown that, for all polymers investigated the values of β_v above a certain temperature T_1 (for $\tau > 14$ sec) are independent of τ and are determined by the conductance. For PK and PET it was found that their β_v values decrease in this range, during transition from glowed to quenched samples, by 1-3 orders of magnitude, and in the range of the appearance of dipole-elastic polarization to about one fifth. Thus, the conductance of PK and PET is much reduced during crystallization. For TSE-80 and POM, where various types of dipole losses are superimposed, the quantity of the imaginary part of the dielectric constant (ε'') was determined from $\beta_v(\tau = 1 \text{ sec})$ on the basis of the theory of dielectric losses. The dependences $\varepsilon'' - T$ were shown to take a different course for f = 0.1 cycle than for 20 kilocycles. The maximum appearing at $-100°C$ (f = 0.1 cycle) was asymmetric, while a symmetric maximum was observed at $-50°C$ (20 kilocycles). This change of the $\varepsilon'' - T$ curve is probably connected with two relaxation processes with different activation energy, which determine the losses observed for TSE-80 and POM at low temperatures. Processes with a shorter probable relaxation time also have a lower activation energy. The two loss maxima can be observed only on low

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The electric conductivity of...

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frequencies, since with a temperature increase the difference between the probable relaxation times gets smaller and smaller. There are 5 figures and 1 table.

ASSOCIATION: Nauchno-issledovatel'skiy institut polimerizatsionnykh plastmass (Scientific Research Institute of Polymerization Plastics)

SUBMITTED: March 20, 1961

Card 3/3

KUZ'MINA, S.V.; NOSAYEV, G.A.; SAZHIN, B.I.; PYDEL'MANT, M.P.

Use of the method of electroconductivity measurement for studying
the kinetics of the block polymerization of styrene. Plast. massy
no.4:67-70 '65.   (MIRA 18:6)

L 21998-66   EWT(m)/EWP(j)   ww/RM

ACCESSION·NR: AP5024502   UR/0191/65/000/010/0025/0027
                                    678. 644'142. 01:537. 226

AUTHOR: Sazhin, B. L.; Eydel'nant, M. P.; Belosludtseva, Ye. I.; Cherkanov,
S. P.; Grebenshchikova, V. A.

TITLE: Dielectric properties of polypropylene oxide

SOURCE: Plasticheskiye massy, no. 10, 1965, 25-27

TOPIC TAGS: polymer, electric property, dielectric permeability, specific
resistance, dielectric loss, crystalline polymer, amorphous polymer, dielectric
property

ABSTRACT: The electric properties of polypropylene oxide (PPO) were investi-
gated in the absence of literature data. The dielectric permeability and the tan-
gent of the angle of dielectric loss were determined in the -120 to -80 C tempera-
ture range at frequencies from 10^{-1} to 10^6 cycles/sec for samples having differ-
ent degrees of crystallinity. Maximum dielectric permeability and dielectric
losses were observed in the -70 to -20 C temperature range at all frequencies.
These values decreased with increase in polymer crystallinity. From the appar-
ent energy of activation calculated for the 10^2-10^5 cycles/sec range, 41 kcal/mol,
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L 21998-66

ACCESSION NR: AP5024502   /

the losses are of the dipole-elastic type. The maximum temperatures for the dielectric and mechanical losses are both about -65C, indicating the same mechanism, that is, segmentary movement of macromolecules in the amorphous region. The extent of the contribution to static dielectric permeability introduced by dipole-elastic polarization decreases as the degree of crystallinity increases. At room temperature, dielectric permeability values decrease and resistivity increases as the crystallinity of the PPO is increased. "X-ray determinations of the degree of crystallization were determined by M. A. Martynov." Orig. art. has: 4 figures, 1 table and 4 equations.

ASSOCIATION: None

SUBMITTED: 00   ENCL: 00   SUB CODE: 07, 20

NR REF SOV: 002   OTHER: 004

Card 2/2 bK

EYDEL'NANT, N.L.; RUBINA, S.I.; SMOLYANITSKIY, V.Z.; SEREBRYAKOVA, V.L.;
PLUNGIAN, L.V.; DASHKEVICH, V.S.; Prinimali uchastiye:
PESCHANSKAYA, R.Ya.; LEVINA, A.Yu.; GOL'DBREYKH, I.Ye.;
SHCHERBAKOVA, L.P.; PAPULOVA, P.A.

Activated kailin and its use in rubber compounding. Kauch.
i rez. 20 no.9:46-49 S '61.   (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh
izdeliy, Vsesoyuznyy nauchno-issledovatel'skiy institut plenochnykh
materialov i iskusstvennoy kozhi i zavod "Sangigiyena".
                (Kaolin)
                (Rubber, Synthetic)

PESCHANSKAYA, R.Ya.; EYDEL'NANT, N.G.; TEL'DICH, E.l.; KRASOVSKAYA, A.M.

Diatomite and its use in the formulas for rubber footwear. Kauch.
i rez. 24 no.5:20-22 My '65.   (MIRA 18:9)

1. Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh
izdeliy.

PESCHANSKAYA R.Ya.; FYDEL'MANT, N.I.; SMOLYANITSKIY, V.E.; GERSHENOVICH, A.I.;
    STEFANOVICH. V.V.; GAL'PRAYKH, I.Ye.; ALEKSEYEVA, N.A.; TIKHONOVA, Zn.I.

    Use of paraalkylbenzyl pyridinium chloride as volcanization
    accelerator of rubber compounds. Kauch. i rez. 24 no.10:27-29
    '65.   (MIRA 18:10)

    1. Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh
    izdeliy i Zavod "Krasnyy treugol'nik".

L 9697-66   EWT(m)/EWP(j)   RM
ACC NR: AP5026524   SOURCE CODE: UR/0286/65/000/019/0069/0069

AUTHORS: Silonova, M. S.; Trofimovich, D. P.; Peschanskaya, R. Ya.; Eydel'nant,
N. L.; Gorelik, Ye. A.

ORG: none

TITLE: Method for obtaining sponge rubber. Class 39, No. 175220 /announced by
Scientific Research Institute for Rubber and Latex Products (Nauchno-issledovatel'skiy
institut rezinovykh i lateksnykh izdeliy)/

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 69

TOPIC TAGS: rubber, sponge, gelatin, gelatinization agent, catapin, latex

ABSTRACT: This Author Certificate presents a method for obtaining sponge rubber
from latexes, using secondary gelatinization agents. To improve the structure of
the sponge, catapin is used as the secondary gelatinization agent.

SUB CODE: 11/   SUBM DATE: 05Mar64

Card 1/1   UDC: 678.061-496

Effect of calcium on leaf structure and physiological processes in the melon. V. I. Runov and N. M. Bidel'nant (Mid-Asiatic Plant Protect. Sta., Tashkent). *Doklady Akad. Nauk S.S.S.R.* **73**, 307-9(1950).—Melon plants sprayed with 3% Ca(NO₃)₂ soln. showed: development of new leaves of subnormal dimensions with rougher tracing of leaf veins and increased general coarseness of leaf structure; in the plants so treated the invertase activity is largely hydrolytic (synthetic in controls), but amylase activity as detd. via sucrose was zero in exptl. plants (high in controls). The treated plants were more resistant to infection (wilting disease). G. M. K.

Eydel'nant, N. M. — "Influence of the Conditions of Nitrogenous Nutrition on the Metabolism in the Cotton Plant in the Period of Fruit Formation and Ripening." Min Higher Education USSR, Central Asiatic State U imeni V. I. Lenin, Tashkent, 1955 (Dissertation for the Degree of Candidate in Biological Sciences)

SO: Knizhnaya Letopis', No 24, 11 June 1955, Moscow, Pages 91-104

EYDEL NANT, N·M·

Assimilation and absorption of nitrogen and phosphorus by cotton plant in late periods of development. N. M. Eidel'nant (Central Fertilizers and Soil Sci. Sta., Tashkent) *Doklady Akad. Nauk S.S.S.R.* **105**, 364-6(1955).—Absorption of N is greatest during flowering and fruit formation, it declines during fruit ripening, and rises again during pod opening; P uptake declines steadily through these periods. The assimilation picture is similar for N, but P shows a moderate rise just before pod opening, followed by a further decline. N and P slowly drop in the vegetative organs and rise in the gradually accumulating cellulose fiber.

— G. M. Kosolapoff.

COUNTRY   : USSR

CATEGORY   : Cultivated Plants. Commercial. Oleiferous.
              Sugar-Bearing.

ABS. JOUR. : Ref Zhur-Biologiya, No.5, 1959, No. 20397

AUTHOR   : Rydel'nant, N.M.

INST.   :

TITLE   : The Effect of Late Nitrogen Sidedressing
              on Cotton Metabolism.

ORIG. PUB. : Sb. nauchn. rabot po primeneniyu udobreniy
              pod khlopchatnik. Tashkent, 1957, 325-333

ABSTRACT   : In a field test made in 1952 the effect was
              studied of the July and August N sidedressings
              on the N and P uptake and distribution and
              on the yield in cotton. The rate of N and P
              uptake dropped sharply from flowering to
              ripening and once again rose during the boll
              opening stage. July sidedressing rapidly
              increased the N and P uptake, which then in-
              tensively issued to the bolls. August side-
              dressing of the plants which had been

CARD :   1/3

Cultivated Plants.

Ref Zhur-Biologiya, No.3 , 1950, No. 20

author :

TITLE :

ORIG. PUB.:

ABSTRACT : August sidedressing of cotton is deduced.
--D.B. Vakhmistrov

CARD :   3/3

EYDEL'S, L.

Inertia of thought. Znan.-sila 38 no.6:46 Je '63. (MIRA 16:8)

(Scientific recreations)

EYDEL'S, L.M. (Severo-Kazakhstanskaya oblast').

Simple models for a course in drawing. Mat.v nhkole no.2:75-76
Mr-Ap '54.

(MLRA 7:3)
(Drawing)

BYDEL'S, L.

Without ties. Znan. sila no.11:28 N '54.   (MLRA 8:1)
     (Aviaries)

RYDEL'S, Leonid Markovich; RODIONOVA, Z.A., redaktor; RYBIN, I.V.,
tekhnicheskiy redaktor

[Equipment for lessons in mechanical drawing and extracurricular
work; a manual for teachers] Oborudovanie urokov chercheniia i
vneklassnaia rabot; posobie dlia uchitelei. Moskva, Gos. uchebno-
pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1956. 79 p.
(Mechanical drawing—Study and teaching)

CYDEL'S, L.M.

GOSUDARSKIY, Lev Mikhaylovich; KALISHEVSKAYA, Valentina Antonovna;
ZHILKIM, Yevgeniy Vladimirovich; EYDEL'S, Leonid Markovich;
GUS'KOV, G., redaktor; GARNIK, V.P., tekhnicheskiy redaktor;
SOKOLOVA, R.Ya., tekhnicheskiy redaktor

[Assignments in drawing] Pourochnye razrabotki po chercheniiu.
Pod red. L.M.Gosudarskogo. Moskva, Izd-vo Akademii pedagogiche-
skikh nauk, 1956. 348 p.   (MIRA 10:3)
          (Mechanical drawing)

RYDEL'S L.

Designs, sketches, developments. IUn. tekh. no.5:46-48 My '57.
            (Mechanical drawing)   (MIRA 10:6)

EYDEL'S, L.M.

The school and the factory. Politekh.obuch. no.7:19-22 Jl '57.
(MLRA 10:7)
(Education, Cooperative)

EYDEL'SHTEYN, B. M., Cand of Med Sci -- (diss) New surgical method of treating of incomplete bone structure." Sverdlovsk, 1957, 13 pp (Sverdlovsk State Medical Institute), 200 copies (KL, 35-57, 109)

EYDEL'SHTEYN, B.S., inzhener.

Precast reinforced concrete in the experimental demonstration
construction work of a large-panel apartment house in Leningrad.
Bet. 1 zhel.-bet. no.8:271-276 Ag '56.   (MLRA 9:10)

(Leningrad--Apartment houses) (Precast concrete construction)

22631

S/118/61/000/001/003/005
A161/A133

12.9100

AUTHORS: Yudin, N.P., Eydel'shteyn, I.A., Zeifert, V.P., Engineers

TITLE: Drifting combine "Karaganda - 1M"

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 1, 1961,
43-45

TEXT: The combine has been designed by the Karagandinskiy nauchno-issledo-
vatel'skiy ugol'nyy institut (Karaganda Scientific Research Institute of
Coal) and the first unit was built at the Temir-Tauskiy liteyno-mekhaniches-
kiy zavod (Temir-Tau Foundry and Machine Plant). The "Karaganda-1" is in-
tended for the drifting of horizontal and sloping (up to $\pm12^0$) preparatory
workings with 4.32 m^2 cross section area in coal and rocks of moderate hard-
ness. It cuts coal (or rocks), removes it from the face and loads it on a
reloader and CKP-11 (SKR-11) scraper chain conveyers. The work tools are a
drill and a crown, and two cutting disks with replaceable cutting bits. The
disks are rotating about the main machine shaft and at the same time on their

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Drifting combine "Karaganda - 1M"

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shafts in the opposite sense. They throw the loosened mass to the shield be-
hind, or load it on a conveyer located on the lower part of the combine when
passing the bottom side of the face. The working cut by the disks is round,
2.3 m in diameter. The berm milling cutters of the combine give the finish-
ed working and arched shape and at the same time move loose mass from the
side walls to the conveyer on the combine. The work side of the conveyer is
on the bottom, and its chain drives the berm milling cutters. The caterpil-
lar, electric system and hydraulic system (slightly changed) are from the
ПКГ-3 (PKG-3) combine. A centrifugal fan on the combine sucks off the dusty
air from the working space. Propping is possible only behind the combine,
and the driver is protected by a special shield. The technical data of the
combine are: Work disks diameter - 1,000 mm; they are rotating at 47.3 -
106.48 rpm; the number of bits on one disk is 24, 12 and 6; the disk car-
rier operates with 2.85 rpm; the maximum diameter of the drill is 600 mm and
the rotation velocity is 45.6 - 112 rpm; the macimum crown diameter is 130 mm
and the rotation speed is 169.4 - 426 rpm; hourly power of the electric mo-
tor is 65 kw, the continuous power is 28.5 kw, the armature rotation speed
is 1,460 rpm. The scraper conveyer is driven by a 29 kw motor, the caterpil-
lar by two 8 kw motors with 980 rpm. The work speed is 3.34, 4.27 and 6.01

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Drifting combine "Karaganda - 1M"

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m/h; maneuvering speed 68.4, 86.5 and 124.9 m/h. The 650 mm diameter berm
cutters are rotating at 52 rpm. The loading scraper conveyer works with
1.27 m/sec chain speed. The total length of the combine is 6,800 mm, width
over the caterpillar chains 1,860 mm, weight 17 ton. It has been tested in
drifting the west airway in the No.120 mine of the "Saran'ugol'" coal trust,
dangerous because of explosive coal dust, in the "Verkhnyaya Marianna" seam
of varying thickness between 4.6 and 6.8 m. The seam is disturbed, includes
many imbedded clay and shale layers and slopes 16-28°. The coal was trans-
ported by up to 13 SKR-11 conveyers to 1 km distance. The work face was
sprinkled by an OH-2 (ON-2) pump through metal pipes and hoses from 1 km dis-
tance. A schematic drawing of the combine in the drift is included (Fig.2).
The operating team consisted of the combine driver and 3-4 assistants in-
stalling permanent propping, working with the conveyers and bringing materi-
als, one combine mechanic, 2-3 repair mechanics and 2-3 girls attending the
conveyer lines. The highest drifting speed achieved per shift was 15 m, the
average (minus downtime) was 3.2 m/h. The "Karaganda-1M" proved considera-
bly more efficient than the PKG-3 combine with ГНЛ-30 (GNL-30) loader. The
exhaust system of the combine reduced the dust content of the air to 40-88 mg/
m³ (comparing to 102-130 mg/m³ without exhausting) at an airway length of

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Drifting combine "Karaganda - 1M"

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500 m. At 100-150 m ventilated section length and 0.6 m/sec air flow, without the dust exhaust, the dust content was 40-70 mg/m^3, or 20-25 times less than with the ПК-3 (PK-3), ПК-2М (PK-2M) and PKG-3 combines. The test proved that the "Karaganda-1M" with the described tools is fully acceptable for the conditions in the test seam, and it is cheaper in operation than other combines. Its drawback is the large unpropped space (14 square meter) because of the size of the caterpillar carriage. It managed 15° upward slope and 13° downward (comparing to a possible maximum of 5-7° with the PKG-3 with bucket loader). The combine as a whole and its individual components can be used for the development of a pilot series of larger combines for up to 7.6 m^2 face area single-track drifts and one for 15.7 m^2 double-track drift. There are 2 figures.
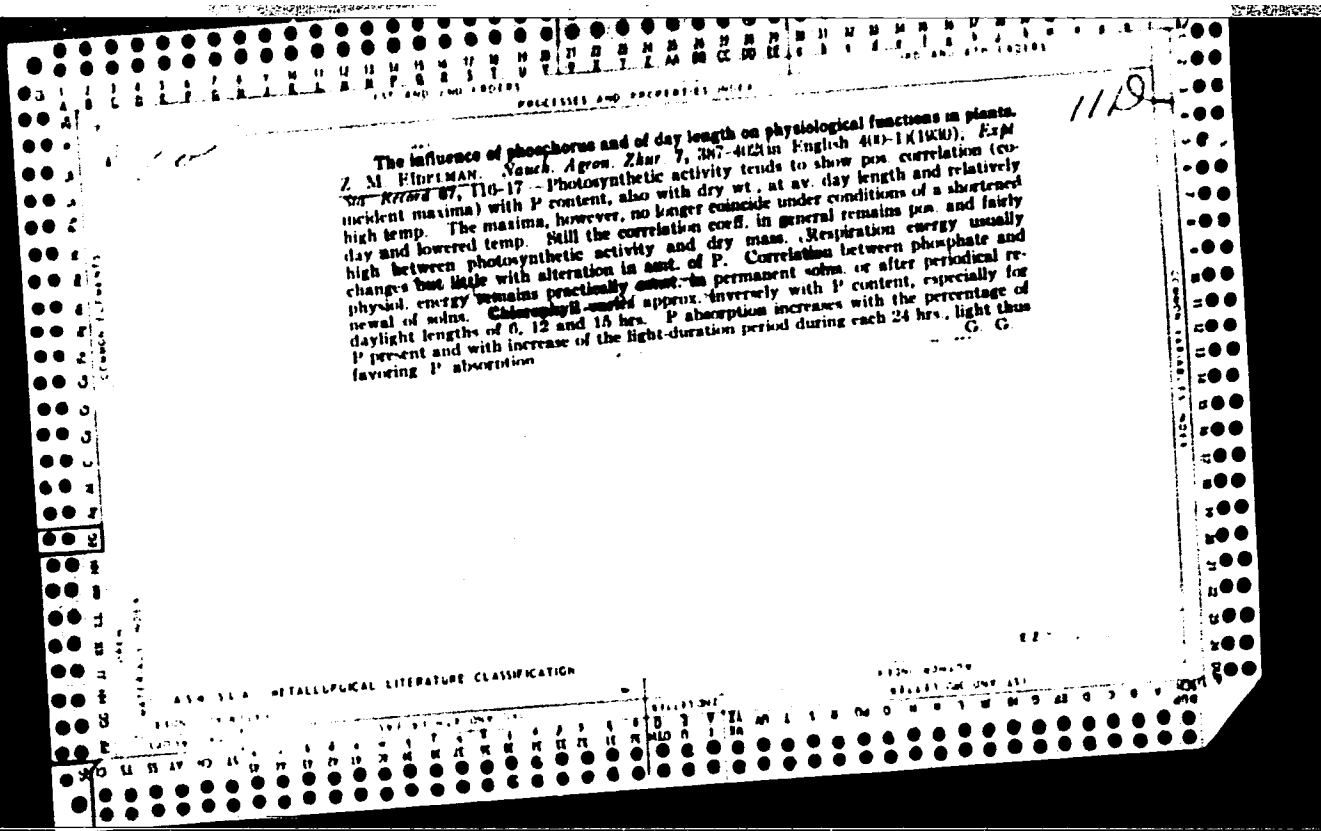
Card 4/6

PAPERNYY, Yevgeniy Aleksandrovich; EYDEL'SHTEYN, Igor' Lazurevich;
KRASITSKIY, Miroslav Stepanovich; KARMANOV, S., red.

[Proper temperature measurement] Pravil'noe izmerenie tem-
peratur. Kaliningrad, Kaliningradskoe knizhnoe izd-vo,
1964. 136 p. (MIRA 17:11)

TEREKHIN, K.; NYDEL'MAN, Yu.

Using machines in constructing electric transmission
lines. Sel'.stroi. 15 no.8:16-17 Ag '60.
                                        (MIRA 13:8)

1. Upravlyayushchiy Stavropol'skim stroitel'no-mono-
tashnym trestom "Sel'elektrostroy" (for Terekhin). 2. Glavnyy
inzhener Stavropol'skogo stroitel'no-montazhnogo tresta
"Sel'elektrostroy" (for Nydel'man).
            (Stavropol' Territory--Electric lines--Poles)
               (Hoisting machinery)

The influence of phosphorus and of day length on physiological functions in plants.
Z. M. Hurtman. *Nauch. Agron. Zhur* 7, 387-402 in English 400-1 K(1930). Exp
in *Kitora 87*, 116-17 - Photosynthetic activity tends to show pos. correlation (co-
incident maxima) with P content, also with dry wt., at av. day length and relatively
high temp. The maxima, however, no longer coincide under conditions of a shortened
day and lowered temp. The correlation coeff. in general remains pos. and fairly
high between photosynthetic activity and dry mass. Respiration energy usually
changes but little with alteration in amt. of P. Correlation between phosphate and
physiol. energy remains practically const. in permanent soln. or after periodical re-
newal of soln. Chlorophyll-content approx. inversely with P content, especially for
daylight lengths of 0, 12 and 18 hrs. P absorption increases with the percentage of
P present and with increase of the light-duration period during each 24 hrs., light thus
favoring P absorption.   G. G.

METALLURGICAL LITERATURE CLASSIFICATION

EYDEL'MAN, Z. M.

EYDEL'MAN, Z. M. "Influence of Mechanical Reduction of Leaf Surface on the Growth
and Development of Cultivated Plants in Connection with Methods for Estimating
Disease Infection, " Trudy po Zaschite Rasteni, Seriia 2, no.3, 1933, pp.14-42.
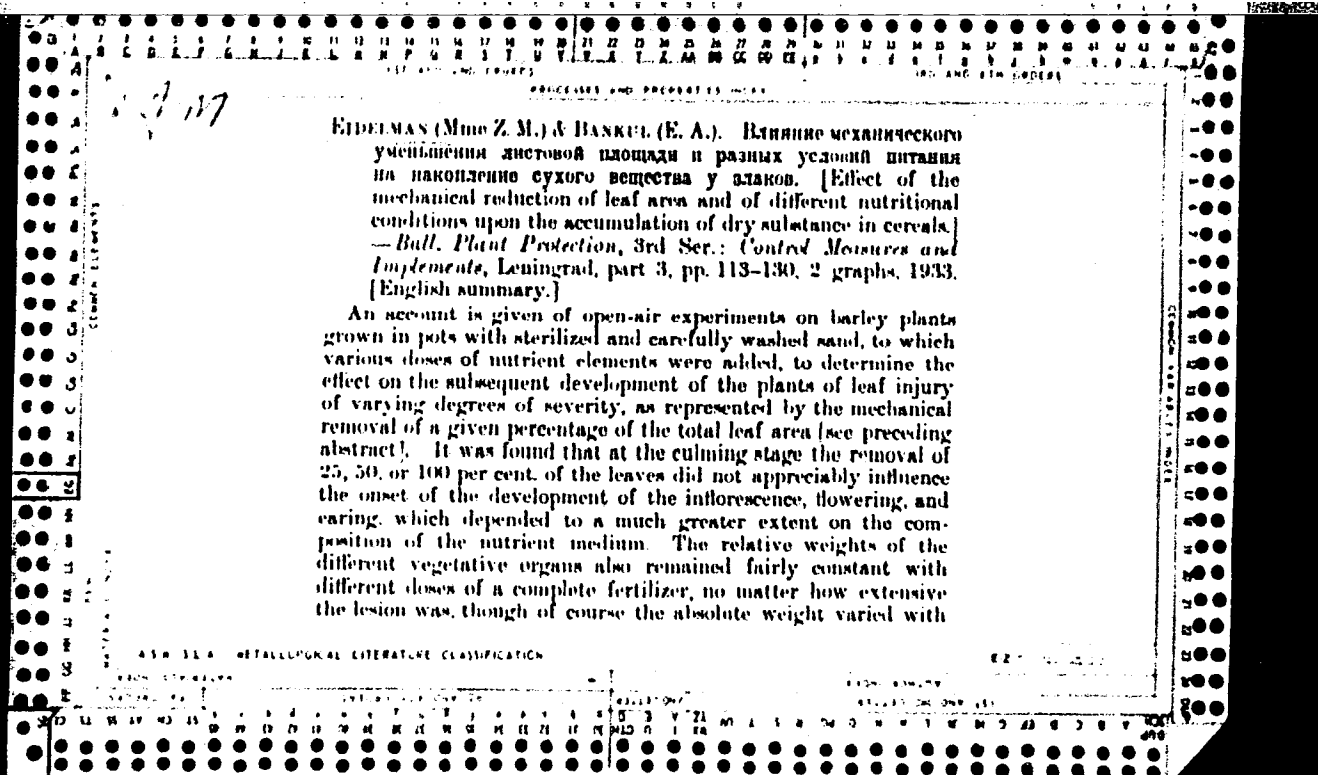423.92 L54C.

So: SIRA S190-15, 15 Dec. 1953

EIDELMAN (Mme Z. M.). Основные результаты опытов искусственного уменьшения листовой поверхности в разных географических пунктах. [Fundamental results of experiments involving the artificial reduction of leaf surface in different geographical areas.] — Bull. Plant Protection, 3rd Ser.: Control Measures and Implements, Leningrad, part 3, pp. 65-72, 1933. [English summary.]

In this paper the author briefly summarizes the results of experiments [which are fully described and discussed in three separate communications] carried out on the same pure line of spring wheat by herself in Leningrad and by E. Telitchko and E. Siriatchenko in Kieff [Ukraine], and on a line of winter wheat and on oats at Belaya Tzerkoff, Ukraine, by V. Shevtchenko, to determine the

effect on the further development of the plants and on their yield of the mechanical recision of varying percentages (from 25 to 100) of the total leaf surface at different stages in the development of the plants, the general aim of the work being to establish the effect of the injury caused by various   rasites (e.g. Puccinia spp.) to the foliage under different ecologi   onditions.

The chief conclusions drawn from the Helaya Tzerkoff tests are that the experimental reduction of the leaf area in both winter wheat and oats during the earlier stages (tillering and culm formation) of the plants retards their further development by a maximum of about two weeks and is reflected in the subsequent vigour of the plants, this effect being more pronounced in the reproductive than in the vegetative organs. Recision of the leaves during the tillering and culming phases reduced the yield in grain much more in oats than in winter wheat, and a statistical analysis of the results clearly demonstrated the direct relationship of the percentage reduction in yield to the percentage amount of the leaf surface removed. At later stages the effect of the operation was more uniform on both hosts, but the removal of 100 per cent of the foliage at the earing stage again affected the oats markedly more than the wheat, the operation resulting in the former in a reduction in yield by 71·8 per cent. of the controls, as against a reduction by 54·9 per cent. in wheat. The quality of the grain (as judged by the relative weight of 1,000 grains) was also more adversely affected by the removal of all the various percentages of leaf at all stages of growth in oats than in wheat. Finally, the experiments demonstrated that the presence on the plants of the lower leaves is of considerable importance to the yield even at the blossoming and milky maturity stages, since the removal of the oldest and lowest leaves at either stage resulted in a reduction of the weight of 1,000 grains by 17 to 20 per cent.

EIDELMAN (Mme Z. M.) & BANKUL (E. A.). Влияние механического
уменьшения листовой площади и разных условий питания
на накопление сухого вещества у злаков. [Effect of the
mechanical reduction of leaf area and of different nutritional
conditions upon the accumulation of dry substance in cereals.]
— Bull. Plant Protection, 3rd Ser.: Control Measures and
Implements, Leningrad, part 3, pp. 113–130, 2 graphs, 1933.
[English summary.]

An account is given of open-air experiments on barley plants
grown in pots with sterilized and carefully washed sand, to which
various doses of nutrient elements were added, to determine the
effect on the subsequent development of the plants of leaf injury
of varying degrees of severity, as represented by the mechanical
removal of a given percentage of the total leaf area (see preceding
abstract). It was found that at the culming stage the removal of
25, 50, or 100 per cent. of the leaves did not appreciably influence
the onset of the development of the inflorescence, flowering, and
earing, which depended to a much greater extent on the com-
position of the nutrient medium. The relative weights of the
different vegetative organs also remained fairly constant with
different doses of a complete fertilizer, no matter how extensive
the lesion was, though of course the absolute weight varied with

the severity of the lesion. This leads to the conclusion that soil fertilizers act on leaf-diseased plants in the same way as on healthy ones. Barley reacted to the severity of leaf lesions under the different nutritional conditions to a much less extent than spring wheat, and its yield was also less adversely affected; its root system suffered from the treatment even less than the overground parts. Phosphorus, as well as most of the other nutrients, appeared to have a stimulating effect on the photosynthetic energy, while with nitrogen the tendency was the reverse. Under all the nutritional conditions tested a reduction of up to one-half of the assimilating surface of the plants had a stimulating effect on the photosynthetic activity of the remaining portions of the leaves.

The work is considered to indicate that an analysis of the effect of the single factors concerned in the expression of pathological symptoms in plants (in the present case, the nature and varying doses of nutrients) may lead to an approximate understanding of the operation and influence of these factors on the yield of the plants in nature.

EYDEL'MAN, Z. M.,

EYDEL'MAN, Z. M., AND HANKUL, E. A.   "Cytological Evaluation of Leaves of
Different Ages and Stages of Development of a Given Plant." Trudy po Zarchitte
Rastenii, Seriia 3, no. 3, 1933, pp. 131-146.   423.92 L54C.

So: SIRA S190-15, 15 Dec. 1953

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Determination of mineral oil in the tissues of plants sprayed with emulsions. Z. M. Kikkl'man and N. G. Novikova. *Plant Protection* (U. S. S. R.) No. 8, 66-73 (in English 73)(1908).—A slice of the tissue, placed on the slide, is treated with 0.1 N NaOH for 20 min., washed with water, dyed with a soln. of thionine (0.1 g. per 100 cc. of 8% C₂H₅OH), for 1 hr., washed with water again, then with 1:1 alc.-acetone mixt., and treated with "fatty-red AT" dye for 1-3 hrs. If "fatty-red AT" dye ppts. upon drying, then the cut should be immediately washed with 1:3 glycerol-water mixt. The cuts are placed in glycerol. After double dyeing, red-colored mineral oil may be observed. According to an alternative method the sections, after treatment with 1:1 alc.-acetone, are dyed with methyl violet in the presence of 2% of AcOH for 1.5 hrs., washed with water, and dyed with "fatty-red AT" for 1 or more hrs. In both cases drops of mineral oil are dyed red and the cells placenta blue. The penetration of oil emulsion into tissue is discussed.   A. A. P.

Kirilenko, A., and Eidelnant, L. New system for COOLING AND STRENGTHENING LININGS OF BLAST FURNACE BOSHES. *Teoria i Pract Met*, No. 3, 13-16 (1937) (in Russian). A new method for cooling boshes is proposed in which the whole surface of the boshes is covered with cooling plates cast with projections into which brick of the lining fit

The application of emulsions of petroleum and tar oils for the control of pests of agricultural crops. Abud Sel'sho-Kjos. Nauk Lenina, Moscow 1939, 95 pp (in Russian). The action of mineral oil emulsions on plants. Z. M. Ridel'man. Ibid. 29-40; cf. C. A. 35, 1174¹.—Greenhouse tests and field expts. in Sukhum showed that oils for use in spraying citrus in summer should be of low viscosity (1.5-1.8° Engler at 80°) and contain not more than 2-3% sulfonatable compds. (I). Presence in the oil of a considerable quantity of I sharply reduced the intensity of photosynthesis, transpiration and respiration of the leaves, and the duration of this disorganization increased with the viscosity of the oil (up to 6° in the expts.) regardless of degree of refinement. Defoliation of apple trees by oil sprays was less for trees growing in moist soil than for those in dry soil. This was due to the presence in the cell walls and intercellular spaces of more water, which interferes with the penetration of oil into the tissues. The use of petroleum oil emulsions for the control of the San José scale—Aspidiotus perniciosus Comst. A. I. Popova. Ibid. 41-53.—From extensive tests in the Black Sea and Krasnodar regions it is concluded that mineral oils will reduce a scale infestation on fruit trees only if the trees are in good condition and clean cultivation is maintained. Two winter sprays of 4% oil emulsion, combined with clean cultivation, resulted in 99.1-100% mortality of the scale on apples and plums, compared with only 30.3% in the controls; the yield of uninfested fruit was 94.6%. Applications to apple in the summer of 1% emulsions of machine-oil distillate and of alkalized spindle-oil distillate both gave poor control, while 2% emulsions scorched the leaves. Control of the San José scale on the Maikop Experiment Station during the years 1934-1936. K. V. Petrukhin. Ibid. 54-8.—Spraying infested apple and pear trees 2-6 yrs. old late in July and again early in Oct with a 2% emulsion of a machine-oil distillate gave about 70% control of the scale and did not injure the leaves. In other orchards apple trees 10 yrs. old were slightly scorched. Experiments in the comparative study of the action of petroleum, coal-tar and schist oils on the eggs of the apple sucker—Psylla mali. N. A. Ivanova. Ibid. 59-64.—Sprays contg. petroleum, coal-tar or schist oils were applied to apple trees in the Province of Voronezh during April before the buds opened. The oils were emulsified with soft soap at 3 lb. soap to 2 gal. oil. Heavy coal-tar oils gave complete control of the eggs of P. mali Schm.; 2 highly refined petroleum oils were very effective, but slightly refined petroleum oils and schist oils gave poor results. The better of the 2 highly refined petroleum oils (green oil T), which practically freed the trees from infestation when used at 2% concn., was rich in aromatic compds. and was easier to use than the coal-tar oils because of its greater uniformity on cooling. The use of petroleum-oil emulsions for the control of pests of subtropical cultivated plants in the humid subtropics. T. A. Georgobiani. Ibid. 65-70.—In expts. against citrus pests in Transcaucasia a 1% machine oil emulsion killed up to 97% of Pulvinaria aurantii Ckll. and up to 80% of coccids of the genera Chrysomphalus, Aonidiella and Lepidosaphes and mites. Mealy bugs and Ceroplastes spp. were very resistant. Oil for citrus spraying is the

The effect of the dates of winter spraying with oil emulsions on the vegetative growth of the apple tree. L. M. Edel'man and O. M. Lemikovskii. Plant Protection (U.S.S.R.) 1939, No. 18, 131 5. Spraying with a 1% emulsion of solar and refined machine oil accelerated slightly the development of buds. Particles of solar oil penetrate the tissues of the branches and buds more thoroughly than do the particles of refined machine oil. The chemically active compounds of solar oil have a direct toxic effect on the live tissues, damage by machine oil is due to serious interference with the gas metabolism of the developing buds. At temps. as low as −21° the frost-sensitive grades of apple trees exhibited a slight stimulation of the development of the flower buds from spraying with a 4% oil emulsion. Spraying in winter (November) is not recommended because of considerable damage to young branches. Four references.   W. R. Henn

EYDEL'MAN, Z.M.

Scientific work of the Department of Botany of the Kharkov State Pedagogical
Institute. Bot.zhur.[Ukr.] 10 no.1:112-113 '53.   (MLRA 6:8)
                                    (Ukraine--Botany) (Botany--Ukraine)

KONOVALOV, I.N.; EYDEL'MAN, Z.M.

V.N.Liubimenko's scientific work and the subsequent develop-
ment of his theories. Trudy Bot.inst.Ser.4 no.13:7-12 '59.
(MIRA 13:3)
(Liubimenko, Vladimir Nikolaevich, 1873-1937)
(Plant physiology)

EYDEL'MAN, Z.M.; LITVINENKO, A.I.; SHESTOPALOVA, N.G.

Physiological study of heterosis in corn. Trudy Bot.
inst.Ser. 4 no.13:312-328 '59.   (MIRA 13:3)
          (Corn breeding) (Heterosis)

KONOVALOV, I.N.; SAPOZHNIKOV, D.I.; EYDEL'MAN, Z.M.

Effect of Darwin's theory of evolution on the development
of research in certain branches of plant physiology. Bot.
zhur. 44 no.11:1546-1552 N '59.   (MIRA 13:4)

1. Botanicheskiy institut im. V.L.Komarova Akademii nauk
SSSR, Leningrad.
                    (Plant physiology)

17(3)

AUTHORS: Sapozhnikov, D. I., Eydel'man, Z. M.,   SOV/20-127-5-54/58
                Bazhanova, N. V., Popova, O. F.

TITLE: The Inhibitory Effect of Hydroxylamine on the Light Reaction
                in the Course of Xanthophyll Transformation

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1128-1131
                (USSR)

ABSTRACT: In the most recent papers the participation of carotenoids
                in the transfer of oxygen in the course of the photosynthesis
                is assumed (Refs 1-5). The content of violaxanthine was reduced
                at illumination whereas that of lutein increased. This diffe-
                rence was reduced in the dark. Sapozhnikov   Krasov-
                skaya, and Mayevskaya (Ref 3) assumed an enzymatic nature of
                this mutual transformation of the two xanthophylls mentioned
                and the possible participation of this ferment system in the
                oxygen transfer. Furthermore it was proved that the violaxan-
                thine formation was inhibited under anaerobic conditions
                (reaction in the dark) whereas the light reaction was not
                suppressed by the anaerobiosis. Since oxygen is transferred
                in the light reaction of the xanthophyll transformation it was
Card 1/3   important to investigate the inhibition conditions of this

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reaction. Hydroxylamine is a photosynthetic poison which acts
as a specific inhibitor of the oxygen separation during the
photosynthesis (Refs 6-9). Water weed (Elodea canadensis),
i. e. the youngest shoot tips, 2 - 3 cm long, served as in-
vestigation object. After having been dried they were placed
in boiling dishes with poison solutions of certain concentrat-
ion. Figure 1 shows the results of a typical experimental
series. A part of the boiling dishes with experimental- and
control plants was exposed to the light of a 1000 watt lamp,
the other one left in the dark. Various expositions (Fig 2)
(2-120 minutes) in the poison solution and various poison
concentrations (Fig 4) $(1 \cdot 10^{-4} - 6 \cdot 10^{-2} mol)$ as well as the
illumination intensity (Fig 3) were tested. The following
conclusions are drawn from the results: (1) The light reaction
of the xanthophyll transformation may be completely inhibited
by certain concentrations $(4 \cdot 10^{-2} mol)$. (2) The concentration
of the inhibitor necessary for the inhibition of the light
reaction increases with rising light intensity. (3) The
assumption concerning the enzymatic character of the light

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The Inhibitory Effect of Hydroxylamine on the Light   SOV/20-127-5-54/58
Reaction in the Course of Xanthophyll Transformation

reaction of the mutual transformation of xanthophylls as
well as concerning a close connection between this system
and the oxygen transfer in the course of the photosynthesis
is confirmed. There are 4 figures and 15 references, 6 of
which are Soviet.

PRESENTED: April 23, 1959, by A. I. Oparin, Academician

SUBMITTED: March 16, 1959

Card 3/3

EYDEL'MAN, Z.M.; POPOVA, O.F.

Characteristics of the biosynthesis of plastid phytochromes in hybird and inbred corn forms[w.s.i.E.]. Trudy Bot. inst. Ser.4 no.14:100-111 '60.   (MIRA 14:3)
            (Corn breeding)   (Chromatophores)

EYDEL'NANT, A., professor.

The role of gold as a measure of value in the imperialist era.
Den.i kred. 12 no.5:55-63 N'54.   (MLRA 8:2)
          (Gold)

EYDEL'NANT, A., professer.

"The crisis of the capitalist foreign exchange system". A.V. Evreiskev.Reviewed by A.Eidel'nant.Den.i kred. 13 no.11:56-63 N '55.   (MLRA 9:2)

(Foreign exchange problem)

EYDEL'MANT, A., professor.

      Bourgeois theories of discount policy during the general crisis
of capitalism. Den.i kred. 14 no.1:45-53 Ja '56.   (MLRA 9:5)
                    (Discount)

EYDEL'HANT, Aleksandra Borisovna, doktor ekon. nauk,; BREGEL', E.,prof.,otv. red.;
    LOGOVIHSKAYA, R., red. izd-va,; LEBEDEV, A., tekhn.red.

[Bourgeois theory of money, credit and finance in the general
crisis of capitalism] Burzhuaznye teorii deneg, kredita i finansov
v period obshchego krizisa kapitalizma. Moskva, Gosfinizdat, 1958.
263 p.   (MIRA 11:12)
                              (Finance)

EYDEL'NANT L. B

The Ladles of Slag Cars. L. Eydel'nant. (Stal, 1938, No. 11, pp. 15–18). (In Russian). The occasional very rapid failure of cast-iron slag ladles is due to cracking caused by a combination of the mechanical and thermal stresses to which they are subjected in use. Attempts to prolong the life of these ladles by the use of special thick-walled designs and by varying the chemical composition of the cast iron were not very successful. Following development in America, a number of cast-steel slag ladles were made and have given very good service. The composition and mechanical properties of the steel used are given and the adoption of the conical ladle design with corrugated sides is recommended in spite of tis more difficult production.

NIKOLAYEVSKIY, Ye.Ya., inzh.; EYDEL'NANT, L.B., inzh.; DAVYDOV, A.M., inzh.; SIMACHEV, L.V., red.; BATENCHUK, A.N., inzh., red.; IPATOV, P.P., inzh., red.; KRYLOV, V.A., inzh., red.; PELESHUK, M.I., inzh., red.; PITERSKOV, N.I., red.; SHUBOV, L.B., red.

[Instructions for industrial safety measures in the assembly of technological equipment and piping] Instruktivnye ukazaniia po tekhnike bezopasnosti pri montazhe tekhnologicheskogo oborudovaniia i truboprovodov. Izd.2., perer. i dop. Moskva, TSentr. biuro tekhn.informatsii, 1959. 160 p. (MIRA 13:6)

1. Russia (1917- R.S.F.S.R.) Ministerstvo stroitel'stva. Glavmetallurgmontazh. 2. Glavnyy inzhener Glavmetallurgmontazha Ministerstva stroitel'stva RSFSR (for Simachev).
        (Industrial safety)

KOGANOV, D.Ya., inzh.; EYDEL'NANT, L,B., inzh.

Planning of organizations for mechanized assembly operations.
Nov. tekh. mont. i spets. rab. v stroi. 21 no.2:11-14 F '59.
(MIRA 12:1)

1.Proyektno-konstruktorskaya kontora Mekhanomontazhproyekta
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ALEKSEYEV, Ye.K., inzh.; IZGUR, R.M., inzh.; LYUKE, Ye.P., inzh.; NIKO-
LAYEVSKIY, Ye.Ya., inzh.; PIROGOV, A.N., inzh.; RODIONOVA, R.G.,
inzh.; TOYBIN, V.A., inzh.; FREYDLIN, G.M., inzh.; KHLYUPINA,
A.K., inzh.; CHERNOV, D.L., inzh.; EYDEL'MANT, L.B., inzh.; ZHMUR,
N.S., inzh., retsenzent; Ku_____YOV, G.A., inzh., red.; TIKHANOV,
A.Ya., tekhn.red.

[Production and installation of pipe systems; reference manual]
Izgotovlenie i montazh tekhnologicheskikh truboprovodov; spra-
vochnoe posobie. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1960. 574 p.   (MIRA 13:7)
          (Pipe fitting)

SAZHIN, B.I.; EYDEL'NANT, M.P.

Electric conductivity of polymers. Part 4: Effect of dipole
polarization (polystyrene, poly-ρ-chlorostyrene, styrene-acrylonitrile
copolymer. Vysokom.soed. 3 no.5:761-767 My '61.   (MIRA 14:5)

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(Styrene)   (Acrylonitrile)   (Polymers--Electric properties)

EYDEL'S, L.

      "Incredible" tricks of conical optics. Tekh.mol. 30
      no.10:37 '62.   (MIRA 15:12)
                    (Mirrors)

EYDEL'S, L.

"Flying saucers" by Donald Menzel. Reviewed by L. Eidel's.
Znan.-sila 37 no.9:44 S '62.   (MIRA 15:12)
                          (Flying saucers)
                          (Menzel, Donald)

L 22246-66   EWP(j)/EWT(m)   IJP(o)   RM

ACC NR: AP6006493   SOURCE CODE: UR/0138/65/000/010/0027/0029

AUTHOR: Peschanskaya, R. Ya.; Eydel'nant, N. L.; Smolyanitskiy, V. Z.; Gershenovich, A. I.; Stefanovich, V. V.; Gal'braykh, I. Ye.; Alekseyeva, N. A.; Tikhonova, Zh. I.

ORG: Scientific-Research Institute of Rubber and Latex Products (Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh izdeliy); "Red Triangle" Plant (zavod "Krasnyy treugol'nik")

TITLE: The use of p-alkylbenzylpyridinium chloride as a vulcanization catalyst for rubber mixtures

SOURCE: Kauchuk i rezina, no. 10, 1965, 27-29

TOPIC TAGS: vulcanization, catalyst, butadiene styrene rubber, synthetic rubber, rubber chemical

ABSTRACT: A cationactive pyridinium compound, p-alkylbenzylpyridinium chloride (katapin):

$$\left[R-\bigcirc-CH_2-\overset{+}{N}\bigcirc \right] Cl^- \qquad (1)$$
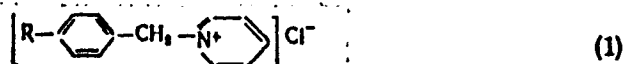
where R is an aliphatic radical containing 12-14 carbon atoms, was studied as a vulcanization catalyst. Katapin is a water-soluble dark-brown paste, now being produced on a semi-industrial basis. When large-scale industrial production is organized, katapin production costs will be close to those of captax, the least expensive vulcanization catalyst. Katapin is found to

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have medium-strength activity as a vulcanization catalyst. Katapin makes possible the produc-
tion of NK-base vulcanizates with higher strength properties than that produced by means of the
standard catalysts: captax, altax, and DFG. In butadiene-styrene rubber mixtures, katapin
comes close in vulcanization activity to that of DFG. Katapin may be used as an independent
agent, as well as in combinations with captax, altax, and thiuram. Orig. art. has: 4 tables.

SUB CODE: 07,11 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 004

Card   2/2   nst